GRADING AND EROSION CONTROL NOTES:

- STORMWATER DISCHARGES FROM CONSTRUCTION SITES SHALL NOT CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR DEGRADATION OF STATE WATERS. ALL WORK AND EARTH DISTURBANCE SHALL BE DONE IN A MANNER THAT MINIMIZES POLLUTION OF ANY ON-SITE OR OFF-SITE WATERS, INCLUDING WETLANDS,
- NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION. ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE, AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS, INCLUDING THE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING.
- A SEPARATE STORMWATER MANAGEMENT PLAN (SWMP) FOR THIS PROJECT SHALL BE COMPLETED AND AN EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP) ISSUED PRIOR TO COMMENCITING CONSTRUCTION. MANAGEMENT OF THE SWMP DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE DESIGNATED QUALIFIED STORMWATER MANAGER OF CERTIFIED EROSION CONTROL INSPECTOR. THE SWMP SHALL BE LOCATED ON SITE AT ALL TIMES DURING CONSTRUCTION AND SHALL BE KEPT UP TO DATE WITH WORK PROGRESS AND CHANGES IN THE FIELD.
- ONCE THE ESQCP IS APPROVED AND A "NOTICE TO PROCEED" HAS BEEN ISSUED, THE CONTRACTOR MAY INSTALL THE INITIAL STAGE EROSION AND SEDIMENT CONTROL MEASURES AS INDICATED ON THE APPROVED GEC. A PRECONSTRUCTION MEETING BETWEEN THE CONTRACTOR, ENGINEER, AND THE EL PASO COUNTY WILL BE HELD PRIOR TO ANY CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE APPLICANT TO COORDINATE THE MEETING TIME AND PLACE WITH **COUNTY STAFF**
- CONTROL MEASURES MUST BE INSTALLED PRIOR TO COMMENCEMENT OF ACTIVITIES THAT COULD CONTRIBUTE POLLUTANTS TO STORMWATER. CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, AND DISTURBED LAND AREAS SHALL BE INSTALLED IMMEDIATELY UPON COMPLETION OF THE DISTURBANCE
- ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE MAINTAINED AND REMAIN IN EFFECTIVE OPERATION CONDITION UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED AND FINAL STABILIZATION IS ESTABLISHED. ALL PERSONS ENGAGED IN LAND DISTURBANCE ACTIVITIES SHALL ASSESS THE ADEQUACY OF CONTROL MEASURES AT THE SITE AND IDENTIFY IF CHANGES TO THOSE CONTROL MEASURES ARE NEEDED TO ENSURE THE CONTINUED EFFECTIVE PERFORMANCE OF THE CONTROL MEASURES. ALL CHANGES TO TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES MUST BE INCORPORATED INTO THE STORMWATER MANAGEMENT PLAN
- TEMPORARY STABILIZATION SHALL BE IMPLEMENTED ON DISTURBED AREAS AND STOCKPILES WHERE GROUND DISTURBING ACTIVITY HAS PERMANENTLY CEASED OR TEMPORARILY CEASED FOR LONGER THAN 14 DAYS
- FINAL STABILIZATION MUST BE IMPLEMENTED AT ALL APPLICABLE CONSTRUCTION SITES. FINAL STABILIZATION IS ACHIEVED WHEN ALL GROUND DISTURBING ACTIVITIES ARE COMPLETE AND ALL DISTURBED AREAS EITHER HAVE A UNIFORM VEGETATIVE COVER WITH INDIVIDUAL PLANT DENSITY OF 70 PERCENT OF PRE-DISTURBANCE LEVELS ESTABLISHED OR EQUIVALENT PERMANENT ALTERNATIVE STABILIZATION METHOD IS IMPLEMENTED. ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE REMOVED UPON FINAL STABILIZATION AND BEFORE PERMIT CLOSURE
- ALL PERMANENT STORMWATER FACILITIES SHALL BE INSTALLED AS DESIGNED IN THE APPROVED PLANS. ANY PROPOSED CHANGES THAT EFFECT THE DESIGN OF FUNCTION OF PERMANENT STORMWATER MANAGEMENT STRUCTURES MUST BE APPROVED BY THE ECM ADMINISTRATOR PRIOR TO IMPLEMENTATION.
- EARTH DISTURBANCES SHALL BE CONDUCTED IN SUCH A MANNER AS TO EFFECTIVELY MINIMIZE ACCELERATED SOIL EROSION AND RESULTING SEDIMENTATION. ALL DISTURBANCES HALL BE DESIGNED, CONSTRUCTED, AND COMPLETED SO THAT THE EXPOSED AREA OF ANY DISTURBED LAND SHALL BE LIMITED TO THE SHORTEST PRACTICAL PERIOD OF TIME. PRE-EXISTING VEGETATION SHALL BE PROTECTED AND MAINTAINED WITHIN 50 HORIZONTAL FEET OF A WATERS OF THE STATE UNLESS SHOWN TO BE INFEASIBLE AND SPECIFICALLY REQUESTED AND APPROVED.
- COMPACTION OF SOIL MUST BE PREVENTED IN AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES OF WHERE FINAL STABILIZATION WILL BE ACHIEVED BY VEGETATIVE COVER. AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES SHALL ALSO BE PROTECTED FROM SEDIMENTATION DURING CONSTRUCTION UNTIL FINAL STABILIZATION IS ACHIEVED. IF COMPACTION PREVENTION IS NOT FEASIBLE DUE TO SITE CONSTRAINTS, ALL ARES DESIGNATED FOR INFILTRATION AND VEGETATION CONTROL MEASURES MUST BE LOOSENED PRIOR TO INSTALLATION OF THE CONTROL MEASURE(S)
- ANY TEMPORARY OR PERMANENT FACILITY DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF STORMWATER AROUND, THROUGH, OR FROM THE EARTH DISTURBANCE AREA SHALL BE A STABILIZED CONVEYANCE DESIGNED TO MINIMIZE EROSION AND THE DISCHARGE OF SEDIMENT OFF SITE
- CONCRETE WASH WATER SHALL BE CONTAINED AND DISPOSED OF IN ACCORDANCE WITH THE SWMP. NO WASH WATER SHALL BE DISCHARGED TO OR ALLOWED TO ENTER STATE WATERS. INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES. CONCRETE WASHOUTS SHALL NOT BE LOCATED IN AN AREA WHERE SHALLOW GROUNDWATER MAY BE PRESENT, OR WITHIN 50 FEET OF A SURFACE WATER BODY, CREEK OR STREAM.
- 14. DURING DEWATERING OPERATIONS OF UNCONTAMINATED GROUND WATER MAY BE DISCHARGED ON SITE. BUT SHALL NOT LEAVE THE SITE IN THE FORM OF SURFACE RUNOFF UNLESS AN APPROVED STATE DEWATERING PERMIT IS IN PLACE.
- EROSION BLANKET OR OTHER PROTECTIVE COVERING SHALL BE USED ON SLOPES STEEPER THAN 3:1.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL WASTES FROM THE CONSTRUCTION SITE FOR DISPOSAL IN ACCORDANCE WITH LOCAL AND STATE REGULATORY REQUIREMENTS. NO CONSTRUCTION DEBRIS, TREE SLASH. BUILDING MATERIAL WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED OR DISCHARGED AT THIS SITE.
- WASTE MATERIALS SHALL NOT BE TEMPORARILY PLACED OR STORED IN THE STREET, ALLEY OR OTHER PUBLIC WAY, UNLESS IN ACCORDANCE WITH AN APPROVED TRAFFIC CONTROL PLAN. CONTROL MEASURES MAY BE REQUIRED BY EL PASO COUNTY ENGINEERING IF DEEMED NECESSARY, BASED ON SPECIFIC CONDITIONS AND CIRCUMSTANCES.
- 18. TRACKING OF SOILS AND CONSTRUCTION DEBRIS OFF-SITE SHALL BE MINIMIZED. MATERIALS TRACKED OFF-SITE SHALL BE CLEANED UP PROPERLY AND PROPERLY DISPOSED OF IMMEDIATELY.
- 19. THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL CONSTRUCTION, DEBRIS, DIRT, TRASH, ROCK, SEDIMENT, SOIL AND SAND THAT MAY ACCUMULATE IN ROADS, STORM DRAINS AND OTHER DRAINAGE CONVEYANCE SYSTEMS AND STORMWATER APPURTENANCES AS A RESULT OF THE SITE DEVELOPMENT.
- 20. THE QUANTITY OF MATERIALS STORED ON THE PROJECT SITE SHALL BE LIMITED. AS MUCH AS PRACTICAL. TO THAT QUANTITY REQUIRED TO PERFORM THE WORK IN AN ORDERLY SEQUENCE. ALL MATERIALS STORED ON-SITE SHALL BE STORED IN AN EAT, ORDERLY MANNER, IN THEIR ORIGINAL CONTAINERS, WITH ORIGINAL MANUFACTURER'S LABEL.
- 21. NO CHEMICAL(S) HAVING THE POTENTIAL TO BE RELEASED IN STORMWATER ARE TO BE STORED OR USED ONSITE UNLESS PERMISSION FOR THE USE OF SUCH CHEMICAL(S) IS GRANTED IN WRITING BY THE ECM ADMINISTRATOR. IN GRANTING APPROVAL FOR THE USE OF SUCH CHEMICAL(S) SPECIAL CONDITIONS AND MONITORING MAY BE REQUIRED.
- 22. BULK STORAGE OF ALLOWED PETROLEUM PRODUCTS OR OTHER ALLOWED LIQUID CHEMICALS IN EXCESS OF 55 GALLONS SHALL REQUIRED ADEQUATE SECONDARY PROTECTION TO CONTAIN AL SPILLS ONSITE AND TO PREVENT ANY SPILLED MATERIALS FROM ENTERING STATE WATERS, ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR OTHER FACILITIES.
- 23. NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE CURB AND GUTTER OR DITCH EXCEPT WITH APPROVED SEDIMENT CONTROL MEASURES.
- 24. OWNER/DEVELOPER AND THEIR AGENTS SHALL COMPLY WITH THE "COLORADO WATER QUALITY CONTROL ACT" (TITLE 25, ARTICLE 8, CRS) AND THE "CLEAN WATER ACT" (33 USC 1344), IN ADDITION TO THE REQUIREMENTS OF THE LAND DEVELOPMENT CODE, DCM VOLUME II AND ECM APPENDIX I. ALL APPROPRIATE PERMITS MUST BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION (1041, NPDES, FLOODPLAIN, 404, FUGITIVE DUST, ETC). IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS AND OTHER LAWS RULES OR REGULATIONS OF OTHER FEDERAL, STATE, LOCAL OR COUNTY AGENCIES, THE MOST RESTRICTIVE LAWS, RULES OR REGULATIONS SHALL APPLY.
- 25. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE ONLY AT APPROVED CONSTRUCTION ACCESS POINTS.
- PRIOR TO CONSTRUCTION THE PERMITEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES. 27. A WATER SOURCE SHALL BE AVAILABLE ON SITE DURING EARTHWORK OPERATIONS AND SHALL BE UTILIZED AS REQUIRED TO MINIMIZE DUST FROM EARTHWORK EQUIPMENT AND WIND.
- 28. THE SOILS REPORT FOR THE SITE HAS BEEN PREPARED BY ENTECH ENGINEERING. INC. DATED OCTOBER 2. 2024 AND SHALL BE CONSIDERED A PART OF THESE PLANS.
- 29. AT LEAST (10) DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION, FOR PROJECTS THAT WILL DISTURB ONE (1) ACRE OR MORE, THE OWNER OR OPERATOR OF CONSTRUCTION ACTIVITY SHALL SUBMIT A PERMIT APPLICATION FOR STORMWATER DISCHARGE TO THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, WATER QUALITY DIVISION. THE APPLICATION CONTAINS CERTIFICATION OF COMPLETION OF A STORMWATER MANAGEMENT PLAN (SWMP) OF WHICH THIS GRADING AND EROSION CONTROL PLAN MAY BE A PART. FOR INFORMATION OR APPLICATION MATERIALS CONTACT:

BAR IS ONE INCH ON

OFFICIAL DRAWINGS

IF NOT ONE INCH.

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT WATER QUALITY CONTROL DIVISION WQCD - PERMITS 4300 CHERR CREEK DRIVE SOUTH DENVER, CO 80246-1530

JOB NUMBER: <u>211030.25</u>

11/18/2024

JOB DATE:

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ATTN: PERMITS UNIT

DRAWN BY: CMD

APPROVED: RDL

CAD DATE: <u>11/19/2024</u>

NO. DATE BY REVISION DESCRIPTION ADJUST SCALE ACCORDINGLY

HR GREEN - COLORADO SPRINGS 1975 RESEARCH PARKWAY SUITE 160 COLORADO SPRINGS, CO 80920 PHONE: 719.300.4140 HRGreen FAX: 713.965.0044

FLYING HORSE NORTH FILING NO. 5

GRADING AND EROSION CONTROL PLAN

A TRACT OF LAND BEING A PORTION OF SECTION 30, TOWNSHIP 11 SOUTH

RANGE 65 WEST OF THE 6TH P.M., AND A PORTION OF SECTION 31, TOWNSHIP 11

SOUTH, RANGE 65 WEST OF THE 6TH P.M.,

CITY OF COLORADO SPRINGS, COUNTY OF EL PASO, STATE OF COLORADO

FILING

FLYING HORSE NORTH

FILING NO. 5 UNPLATTED

SHEET INDEX

3 - 5 INITIAL & INTERIM GEC

11 - CHANNEL SECTIONS

1 - COVER

2 - LEGEND

6 - 8 FINAL GEC

9 - 10 DETAILS

FUTURE

FILING

OLD STAGECOACH ROAD

NE4NE4

31-11-65

COUNTRY VIEW

ESTATES

FLYING HORSE NORTH FILING NO. 5 PRI #2, LLC EL PASO COUNTY, CO

LEGAL DESCRIPTION:

A TRACT OF LAND BEING A PORTION OF SOUTH HALF OF SECTION 30, AND A PORTION OF NORTH HALF OF SECTION 31, TOWNSHIP 11 SOUTH, RANGE 65 WEST THE SIXTH PRINCIPAL MERIDIAN, BEING MORE PARTICULARLY

BASIS OF BEARINGS: THE NORTH LINE OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 36, TOWNSHIP 11 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, BEING MONUMENTED AT THE WEST END BY A 1" YELLOW PLASTIC CAP STAMPED "18235" AND THE EAST END BY A 2" ALUMINUM CAP STAMPED "32439" WITH APPROPRIATE MARKINGS, IS ASSUMED TO BEAR N89°03'58"E A DISTANCE OF 1,332.09 FEET.

COMMENCING AT THE NORTHEAST CORNER OF TRACT F. FLYING HORSE FILING NO. 3 AS RECORDED UNDER RECEPTION NUMBER 224715365. SAID POINT BEING ON THE SOUTHERLY RIGHT-OF-WAY LINE OF OLD STAGECOACH ROAD AS PLATTED IN FLYING HORSE NORTH FILING NO. 1, AS RECORDED UNDER RECEPTION NUMBER 218714238, RECORDS OF EL PASO COUNTY, COLORADO, SAID POINT BEING THE POINT OF BEGINNING; THENCE ON SAID SOUTHERLY RIGHT-OF-WAY LINE THE FOLLOWING FOUR (4) COURSES:

- 1. ON THE ARC OF A CURVE TO THE RIGHT WHOSE CENTER BEARS S01°51'31"W. HAVING A DELTA OF 13°40'23". A RADIUS OF 1,560.00 FEET A DISTANCE OF 372.28 FEET TO A POINT OF TANGENT;
- 2. S74°28'06"E A DISTANCE OF 169.05 FEET TO A POINT OF CURVE:
- 3. ON THE ARC OF A CURVE TO THE LEFT HAVING A DELTA OF 52°50'29", A RADIUS OF 840.00 FEET A DISTANCE OF 774.70 FEET TO A POINT OF TANGENT; 4. N52°41'25"E A DISTANCE OF 1,280.10 FEET;

THENCE S37°18'35"E A DISTANCE OF 402.75 FEET; THENCE S09°22'22"E A DISTANCE OF 488.58 FEET; THENCE S04°05'31"E A DISTANCE OF 1,388.17 FEET; THENCE S07°08'46"W A DISTANCE OF 860.74 FEET TO A POINT ON THE LINE A DISTANCE OF 280.88 FEET TO THE SOUTHEAST CORNER OF THE NORTHWEST QUARTER OF SAID SECTION 31: THENCE S89°11'00"W ON THE SOUTH LINE OF THE NORTHWEST QUARTER OF SAID SECTION 31 A DISTANCE OF 447.29 FEET; THENCE N01°31'19"E A DISTANCE OF 225.22 FEET; THENCE N88°25'47"W A DISTANCE OF 316.03 FEET TO A POINT ON CURVE, SAID POINT BEING ON THE BOUNDARY LINE OF TRACT M, AS PLATTED IN SAID FLYING HORSE FILING NO. 1; THENCE ON THE BOUNDARY LINE OF SAID TRACT M, THE FOLLOWING FIVE (5) COURSES

- 1. ON THE ARC OF A CURVE TO THE LEFT WHOSE CENTER BEARS N66°58'15"W, HAVING A DELTA OF 70°52'24", A RADIUS OF 74.72 FEET A DISTANCE OF 92.42 FEET TO A POINT OF TANGENT:
- 2. N47°50'38"W A DISTANCE OF 125.93 FEET TO A POINT ON CURVE;
- 3. ON THE ARC OF A CURVE TO THE LEFT WHOSE CENTER BEARS N62°07'29"W, HAVING A DELTA OF 93°42'48", A
- RADIUS OF 178.44 FEET A DISTANCE OF 291.86 FEET TO A POINT OF TANGENT; 4. N65°50'18"W A DISTANCE OF 926.31 FEET;
- 5. N66°22'10"W A DISTANCE OF 418.60 FEET;

THENCE N77°19'50"W A DISTANCE OF 99.91 FEET TO A POINT ON THE BOUNDARY OF TRACT F, FLYING HORSE FILING NO. 3, AS RECORDED UNDER RECEPTION NUMBER 224715365; THENCE ON SAID BOUNDARY THE FOLLOWING TWO (2) COURSES:

- 1. N56°12'59"W A DISTANCE OF 96.82 FEET:
- 2. N02°34'45"E A DISTANCE OF 964.84 FEET TO THE POINT OF BEGINNING.

CONTAINING A CALCULATED AREA OF 5,015,016 SQUARE FEET OR 115. 129 ACRES, MORE OR LESS

EL PASO COUNTY	O ONLY FOR GENERAL CONFORMANCE WITH COUNTY
~ ~ ~	NOT RESPONSIBLE FOR THE ACCURACY AND ADEQUACY OF
	ELEVATIONS WHICH SHALL BE CONFIRMED AT THE JOB
•	PPROVAL OF THIS DOCUMENT ASSUMES NO
RESPONSIBILITY FOR COMPLETENE	SS AND/ OR ACCURACY OF THIS DOCUMENT.
FILED IN ACCORDANCE WITH THE RI	EQUIREMENTS OF THE EL PASO COUNTY LAND
•	RITERIA MANUAL, VOLUMES 1 AND 2, AND ENGINEERING
CRITERIA MANUAL AS AMENDED.	
IN ACCORDANCE WITH ECM SECTIO	N 1.12, THESE CONSTRUCTION DOCUMENTS WILL BE VALID
	OF 2 YEARS FROM THE DATE SIGNED BY THE EL PASO
	ION HAS NOT STARTED WITHIN THOSE 2 YEARS, THE PLANS
	OR APPROVAL, INCLUDING PAYMENT OF REVIEW FEES AT
THE PLANNING AND COMMUNITY DE	EVELOPMENT DIRECTORS DISCRETION.
JOSHUA PALMER P.E.	DATE
COLINTY ENGINEED	DAIL

ENGINEER'S STATEMENT	
THIS GRADING AND EROSION CONTROL PLAN WAS	S PREPARED UNDER MY DIRECTION AND
SUPERVISION AND IS CORRECT TO THE BEST OF N	MY KNOWLEDGE AND BELIEF. SAID PLAN HAS
BEEN PREPARED ACCORDING TO THE CRITERIA E	STABLISHED BY THE COUNTY FOR GRADING
AND EROSION CONTROL PLANS. I ACCEPT RESPO	NSIBILITY FOR ANY LIABILITY CAUSED BY ANY
NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY	PART IN PREPARING THIS PLAN.
RICHARD D. LYON, COLORADO P.E. NO. 53921	DATE

OWNER'S STATEMENT:	
, THE OWNER/DEVELOPER HAVE R GRADING AND EROSION CONTROL	READ AND WILL COMPLY WITH THE REQUIREMENTS OF THE PLAN.
DDEW DAI SIOK DDI #211 C	DATE
DREW BALSICK, PRI #2 LLC.	DATE

GRADING & EROSION CONTROL PLAN

COVER

PCD FILE NO.: SF24

SHEET

ABBREVIATIONS

ADDILL	VIATIONO		
_		FOC	FIBER OPTICS CABLE
Δ	DEFLECTION ANGLE	FT	FOOT OR FEET
Ø, DIA	DIAMETER	GB	GRADE BREAK
AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS	GAL	GALLON
ABC	ASPHALT BASE COURSE	HDPE	HIGH DENSITY POLYETHYLENE
ABD	ABANDONED	HC RAMP	HANDICAP RAMP
AC	ACRE	HW	HEADWALL
ADA	THE AMERICANS WITH DISABILITIES ACT	INV	INVERT
ASPH	ASPHALT	KM	KILOMETER
ASS'Y	ASSEMBLY	L	LENGTH
ASTM	AMERICAN SOCIETY FOR TESTING MATERIALS	LF	LINEAR FEET
BFE	BASE FLOOD ELEVATION	M	METER
BLDG	BUILDING	MIN	MINIMUM
BLVD	BOULEVARD	MISC	MISCELLANEOUS
BM	BENCH MARK	MAINT	MAINTENANCE
BNDY	BOUNDARY	MAX	MAXIMUM
BOP	BOTTOM OF POND	MH	MANHOLE
BW	BOTTOM OF WALL	MP	MIDPOINT
C&G	CURB AND GUTTER	N	NORTH/NORTHING
CA	COARSE AGGREGATE	NO	NUMBER
CATV	CABLE TELEVISION	OC	ON CENTER
СВ	CHORD BEARING/CATCH BASIN	ОН	OVERHEAD
CFS	CUBIC FEET PER SECOND	PB	PUBLIC
CIP	CAST IRON PIPE	PC	POINT OF CURVATURE
CL	CENTER LINE	PCC	POINT OF COMPOUND CURVATURE
CMP	CORRUGATED METAL PIPE	PCR	POINT OF CURB RETURN
COMP	COMPOSITE	Pl	POINT OF INTERSECTION
CONC	CONCRETE	PIE	PUBLIC IMPROVEMENT ESMT
CONST	CONSTRUCT OR CONSTRUCTION	PT	POINT OF TANGENCY
CSP	CORRUGATED STEEL PIPE	PRC	PROPOSED
CSU	COLORADO SPRINGS UTILITIES	PRC	POINT OF REVERSE CURVATURE
CT	COURT	PRV	PRESSURE REDUCING VALVE
CTR	CENTER	PVT	PRIVATE
CU	COPPER	PUAE	PUBLIC UTILITY AND ACCESS ESMT
CY	CUBIC YARD	PUADE	PUBLIC UTILITY, ACCESS AND DRAINAGE ESMT
DBL	DOUBLE	PVC	POLYVINYL CHLORIDE
DEG	DEGREE	R	RADIUS
DET	DETAIL	REC	RECEPTION
DEPT	DEPARTMENT	RCBC	REINFORCED CONCRETE BOX CULVERT
DIM	DIMENSION	S	SOUTH
DIP	DUCTILE IRON PIPE	SHT	SHEET
DOT	DEPARTMENT OF TRANSPORTATION	SQ	SQUARE
DWG	DRAWING	SW	SPILLWAY
E	EAST/EASTING	TBC	TOP BACK OF CURB
EL	ELEVATION	TC	TRICKLE CHANNEL
ELEC	ELECTRIC	TOP	TOP OF POND
EOG	EDGE OF GUTTER	TW	TOP OF WALL
EOP	EDGE OF PAVEMENT	TYP	TYPICAL
ESMT	EASEMENT	UG	UNDERGROUND
EW	ENDWALL	VERT	VERTICAL
EX	EXISTING	W	WEST
FD	FRENCH DRAIN	WW	WASTEWATER
FDC	FIRE DEPARTMENT CONNECTION	WWF	WELDED WIRE FABRIC
FE	FLANGE ELEVATION	W/	WITH
FES	FLARED END SECTION	W/O	WITHOUT
FF	FINISHED FLOOR	YD	YARD
FG	FINISHED GRADE	10	., ., .,
FH	FIRE HYDRANT		
FHWA	FEDERAL HIGHWAY ADMINISTRATION		
EI.	ELOW/LINE		

LEGEND

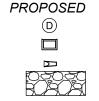
FLOW LINE

LEGEND		
	EXISTING	PROPOSED
MATCH LINE		
FILING LINE		
SECTION LINE		
PROPERTY LINE		
P.I.E. LINE		
MVEA ESMT. LINE		
RIGHT OF WAY		
CENTERLINE		
CHAIN LINK FENCE		
WOODEN FENCE	— · · — · · — · ·	
ROD IRON FENCE		
STORM DRAIN		
SWALE	· • · · • · · • · · · ·	
TRAIL		
EDGE OF ROAD	========	
INDEX CONTOUR		
INTER. CONTOUR		
100-YR FLOODPLAIN		
FLOODWAY		
GEOHAZARD DELINEATION		

STORM SEWER

MANHOLE	
STORM INLET	
FLARED END SECTION	
RIPRAP	

NO. DATE BY



PROPOSED	
D	
Ы	

	FROUDE NUMBER CALCULATIONS: 100-YR						
SECTION		VELOCITY	GRAVITATIONAL CONSTANT	HYDRAULIC DEPTH	XSECTIONAL AREA	TOP WIDTH	FROUDE #
		FT/S	FT/S^2	FT	FT^2	FT	N/A
	A-A	4.69	32.17	0.69	16.70	24.05	0.99
	B-B	5.64	32.17	0.71	8.10	11.37	1.20
	STREET SECTION 1	3.94	32.17	0.70	5.40	7.75	0.83
	STREET SECTION 2	6.60	32.17	0.44	2.70	6.16	1.76
	STREET SECTION 3	3.49	32.17	0.27	1.00	3.69	1.18

SHEAR STRESS CALCULATIONS: 100-YR						
SECTION UNIT WEIGHT OF WATER DEPTH OF FLOW SLOPE SHEAR STRESS						
	LB/FT^3	FT	FT/FT	LB/FT^2		
A-A	62.43	0.90	0.020	1.12		
В-В	62.43	1.40	0.029	2.53		
STREET SECTION 1	62.43	1.10	0.020	1.37		
STREET SECTION 2	62.43	0.90	0.076	4.27		
STREET SECTION 3	62.43	0.50	0.042	1.31		

CHANNEL LINING DETERMINATION						
CAL	CULATED VALUES		P300 MAX VALUES			
SECTION	SHEAR STRESS	VELOCITY	SHEAR STRESS	VELOCITY	LINING REQUIRED	
A-A	0.75	3.78	3.00	9.00	P300	
B-B	2.53	5.64	3.00	9.00	P300	
STREET SECTION 1	1.37	3.94	3.00	9.00	P300	
STREET SECTION 2	4.27	6.60	3.00	9.00	TMAX	
STREET SECTION 3	1.31	3.49	3.00	9.00	P300	

BAR IS ONE INCH ON OFFICIAL DRAWINGS.
0 1" 1" DRAWN BY: <u>AMC</u> JOB DATE: <u>11/18/2024</u> APPROVED: RDL JOB NUMBER: 211030.25 IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

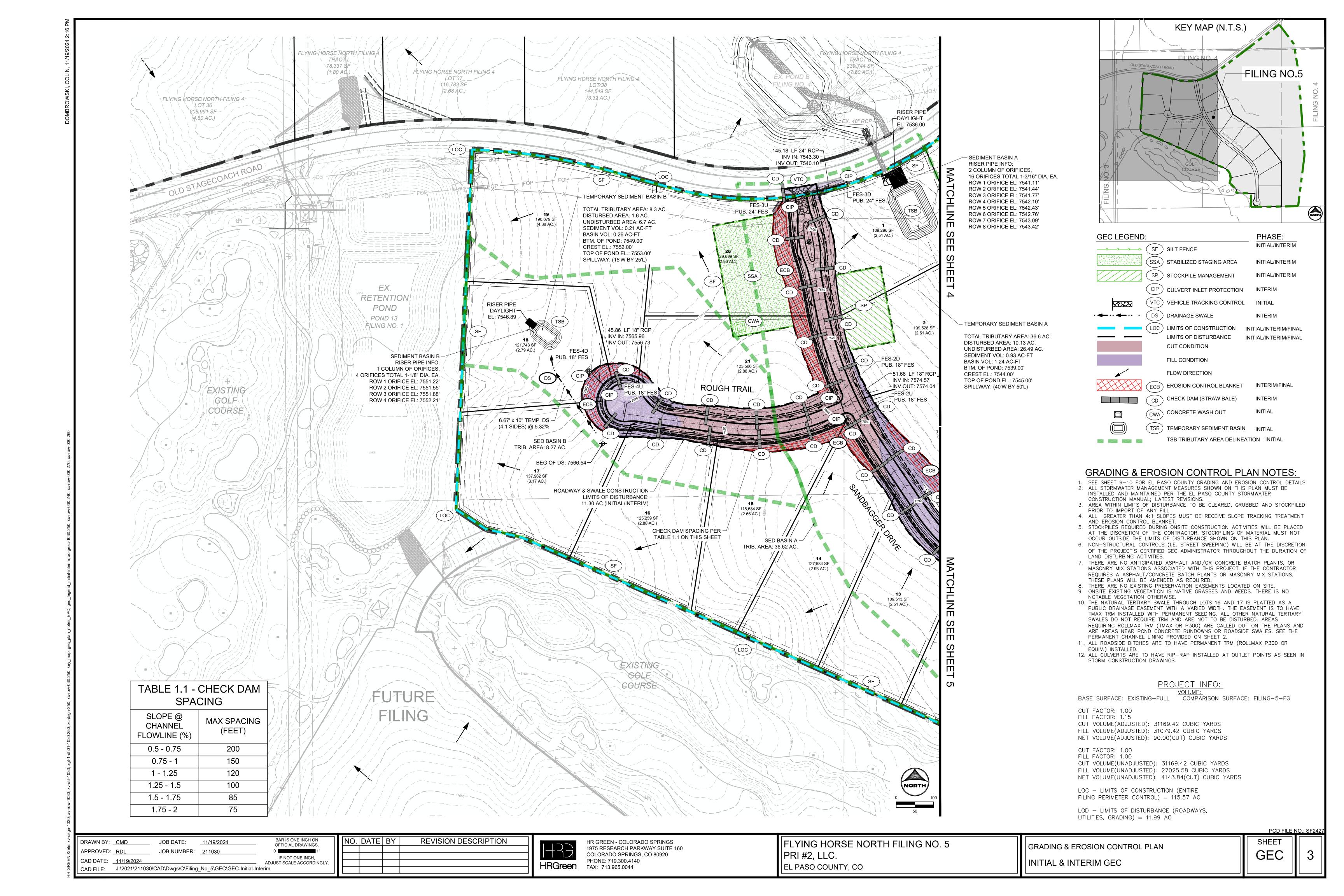
REVISION DESCRIPTION

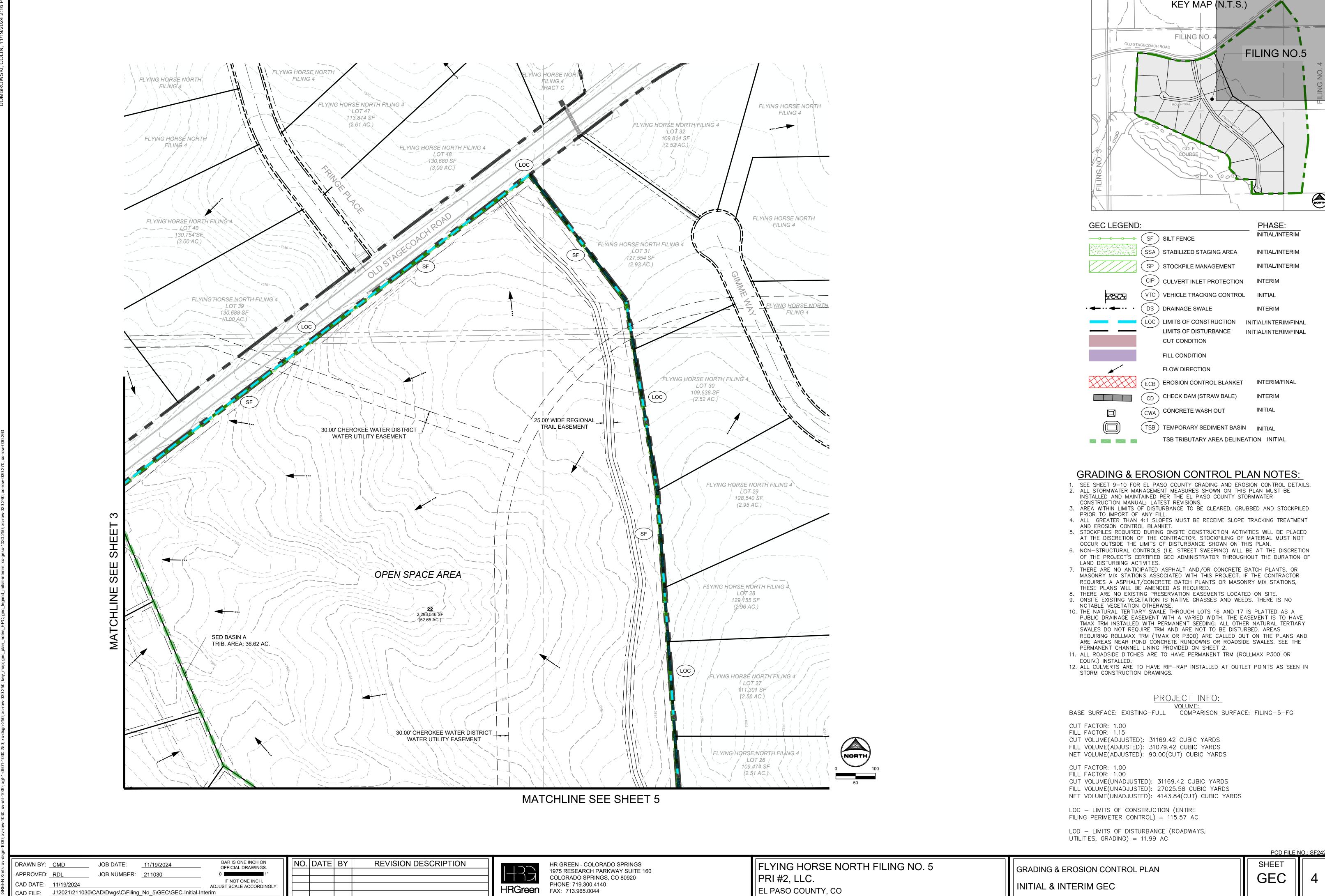
HR GREEN - COLORADO SPRINGS
1975 RESEARCH PARKWAY SUITE 160
COLORADO SPRINGS, CO 80920
PHONE: 719.300.4140
FAX: 713.965.0044

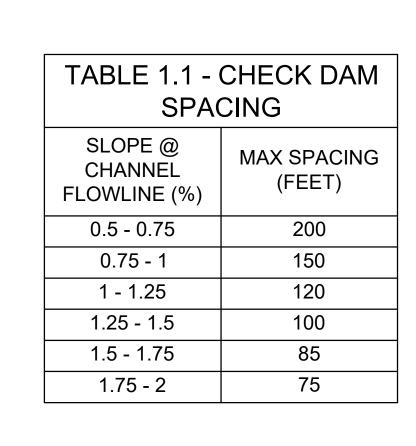
FLYING HORSE NORTH FILING NO. 5 PRI #2, LLC. EL PASO COUNTY, CO

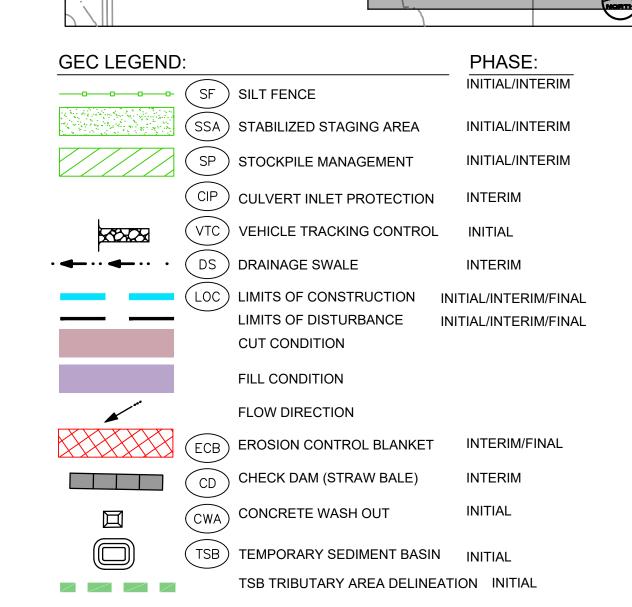
GRADIN & EROSION CONTROL PLAN LEGEND

PCD FILE NO.: SF2427









KEY MAP (N.T.S.)

FILING NO.5

FILING NO.

GRADING & EROSION CONTROL PLAN NOTES:

- 1. SEE SHEET 9-10 FOR EL PASO COUNTY GRADING AND EROSION CONTROL DETAILS. 2. ALL STORMWATER MANAGEMENT MEASURES SHOWN ON THIS PLAN MUST BE INSTALLED AND MAINTAINED PER THE EL PASO COUNTY STORMWATER CONSTRUCTION MANUAL; LATEST REVISIONS.
- 3. AREA WITHIN LIMITS OF DISTURBANCE TO BE CLEARED, GRUBBED AND STOCKPILED PRIOR TO IMPORT OF ANY FILL.
- 4. ALL GREATER THAN 4:1 SLOPES MUST BE RECEIVE SLOPE TRACKING TREATMENT AND EROSION CONTROL BLANKET.
- 5. STOCKPILES REQUIRED DURING ONSITE CONSTRUCTION ACTIVITIES WILL BE PLACED AT THE DISCRETION OF THE CONTRACTOR. STOCKPILING OF MATERIAL MUST NOT OCCUR OUTSIDE THE LIMITS OF DISTURBANCE SHOWN ON THIS PLAN.
- 6. NON-STRUCTURAL CONTROLS (I.E. STREET SWEEPING) WILL BE AT THE DISCRETION OF THE PROJECT'S CERTIFIED GEC ADMINISTRATOR THROUGHOUT THE DURATION OF LAND DISTURBING ACTIVITIES. 7. THERE ARE NO ANTICIPATED ASPHALT AND/OR CONCRETE BATCH PLANTS, OR
- MASONRY MIX STATIONS ASSOCIATED WITH THIS PROJECT. IF THE CONTRACTOR REQUIRES A ASPHALT/CONCRETE BATCH PLANTS OR MASONRY MIX STATIONS, THESE PLANS WILL BE AMENDED AS REQUIRED. 8. THERE ARE NO EXISTING PRESERVATION EASEMENTS LOCATED ON SITE.
- 9. ONSITE EXISTING VEGETATION IS NATIVE GRASSES AND WEEDS. THERE IS NO NOTABLE VEGETATION OTHERWISE.
- 10. THE NATURAL TERTIARY SWALE THROUGH LOTS 16 AND 17 IS PLATTED AS A PUBLIC DRAINAGE EASEMENT WITH A VARIED WIDTH. THE EASEMENT IS TO HAVE TMAX TRM INSTALLED WITH PERMANENT SEEDING. ALL OTHER NATURAL TERTIARY SWALES DO NOT REQUIRE TRM AND ARE NOT TO BE DISTURBED. AREAS REQUIRING ROLLMAX TRM (TMAX OR P300) ARE CALLED OUT ON THE PLANS AND ARE AREAS NEAR POND CONCRETE RUNDOWNS OR ROADSIDE SWALES. SEE THE PERMANENT CHANNEL LINING PROVIDED ON SHEET 2.
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PROJECT INFO:

<u>VOLUME:</u>

BASE SURFACE: EXISTING—FULL COMPARISON SURFACE: FILING—5—FG

CUT FACTOR: 1.00 FILL FACTOR: 1.15

CUT VOLUME(ADJUSTED): 31169.42 CUBIC YARDS FILL VOLUME(ADJUSTED): 31079.42 CUBIC YARDS

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FILL FACTOR: 1.00 CUT VOLUME(UNADJUSTED): 31169.42 CUBIC YARDS FILL VOLUME(UNADJUSTED): 27025.58 CUBIC YARDS

NET VOLUME(UNADJUSTED): 4143.84(CUT) CUBIC YARDS

LOC - LIMITS OF CONSTRUCTION (ENTIRE

FILING PERIMETER CONTROL) = 115.57 AC

LOD - LIMITS OF DISTURBANCE (ROADWAYS, UTILITIES, GRADING) = 11.99 AC

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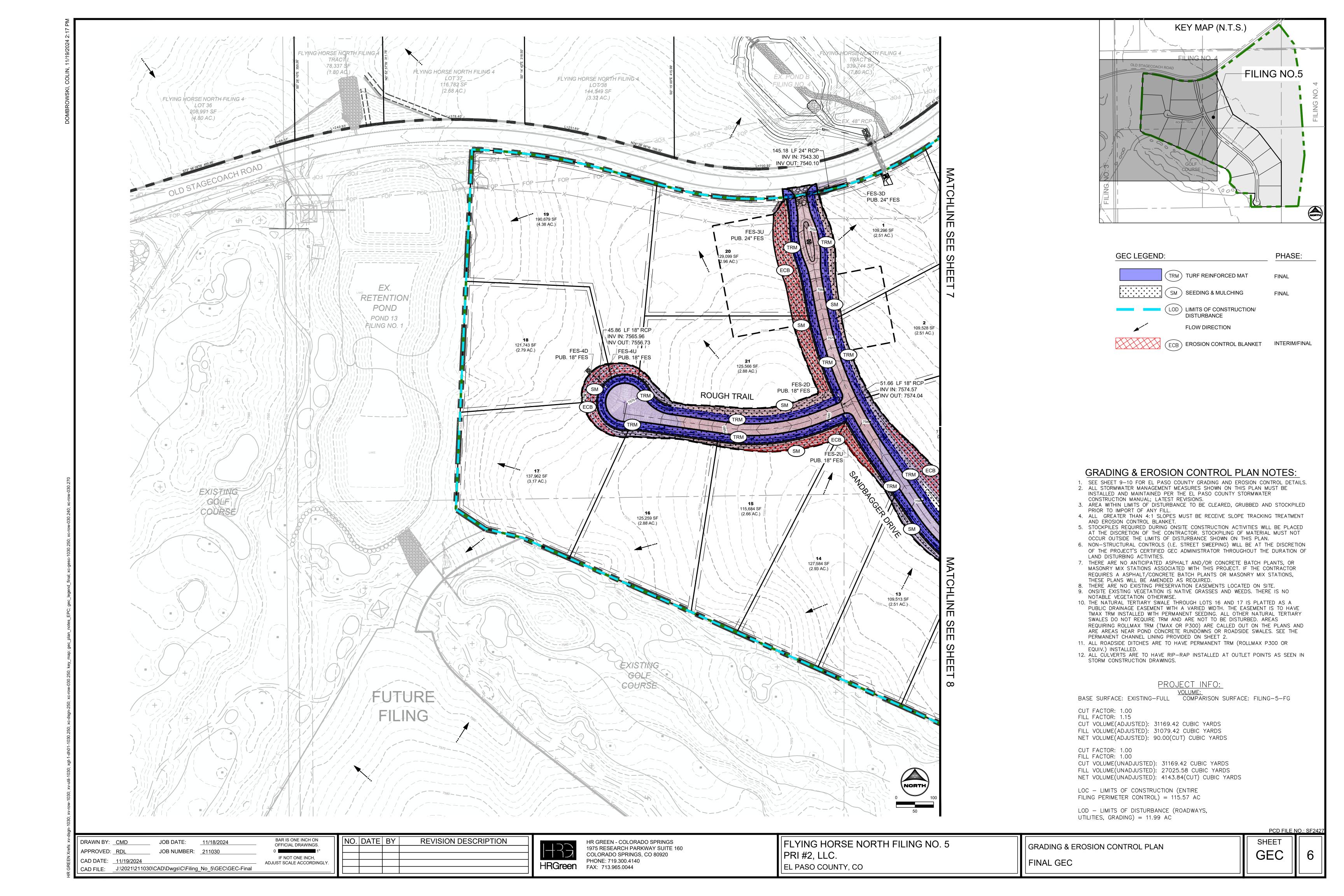
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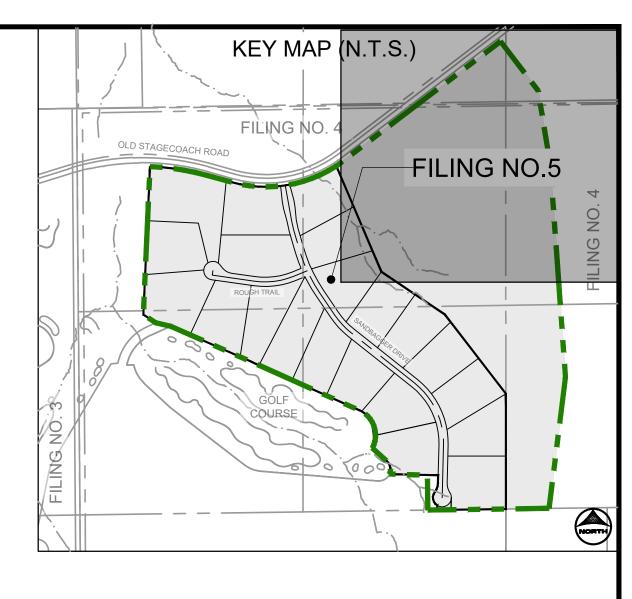
HR GREEN - COLORADO SPRINGS 1975 RESEARCH PARKWAY SUITE 160 COLORADO SPRINGS, CO 80920 PHONE: 719.300.4140 HRGreen FAX: 713.965.0044

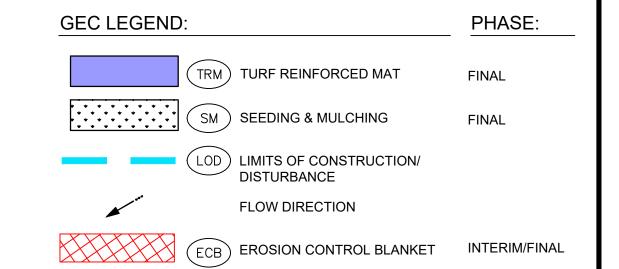
FLYING HORSE NORTH FILING NO. 5 PRI #2, LLC. EL PASO COUNTY, CO

GRADING & EROSION CONTROL PLAN | INITIAL & INTERIM GEC

SHEET GEC







GRADING & EROSION CONTROL PLAN NOTES:

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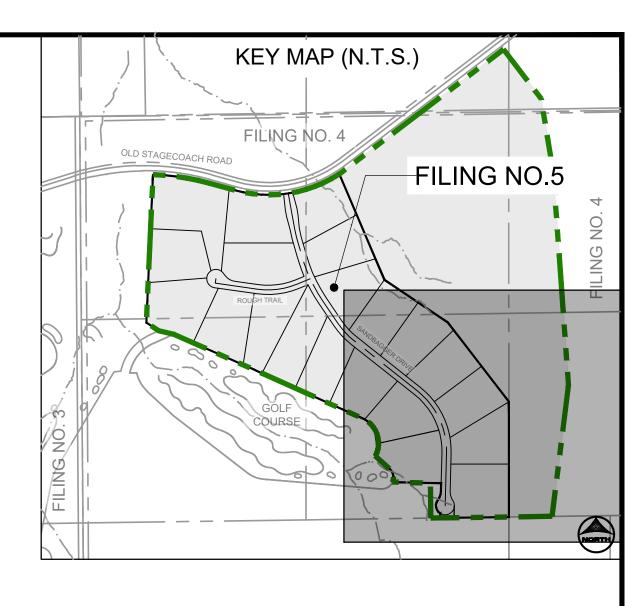
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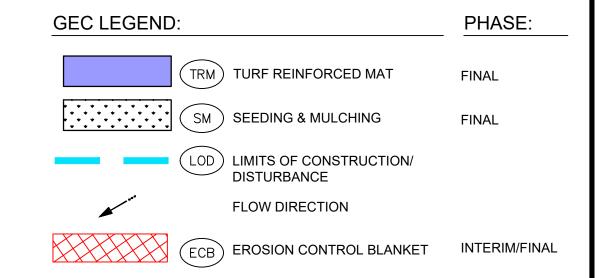
COLORADO SPRINGS, CO 80920 PHONE: 719.300.4140 HRGreen FAX: 713.965.0044

PRI #2, LLC. EL PASO COUNTY, CO

GRADING & EROSION CONTROL PLAN FINAL GEC

SHEET GEC





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1975 RESEARCH PARKWAY SUITE 160 COLORADO SPRINGS, CO 80920 PHONE: 719.300.4140 HRGreen FAX: 713.965.0044

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GRADING & EROSION CONTROL PLAN FINAL GEC

SHEET GEC

Mulching (MU)

EC-4

Description

Mulching consists of evenly applying straw, hay, shredded wood mulch, rock, bark or compost to disturbed soils and securing the mulch by crimping, tackifiers, netting or other measures. Mulching helps reduce erosion by protecting bare soil from rainfall impact, increasing infiltration, and reducing runoff. Although often applied in conjunction with temporary or permanent seeding, it can also be used for temporary stabilization of areas that cannot be reseeded due to seasonal constraints.



Photograph MU-1. An area that was recently seeded, mulched,

Appropriate Uses

Mulch can be applied either using

standard mechanical dry application

methods or using hydromulching equipment that hydraulically applies a slurry of water,

wood fiber mulch, and often a tackifier.

Use mulch in conjunction with seeding to help protect the seedbed and stabilize the soil. Mulch can also be used as a temporary cover on low to mild slopes to help temporarily stabilize disturbed areas where growing season constraints prevent effective reseeding. Disturbed areas should be properly mulched and tacked, or seeded, mulched and tacked promptly after final grade is reached (typically within no longer than 14 days) on portions of the site not otherwise permanently stabilized.

Standard dry mulching is encouraged in most jurisdictions; however, hydromulching may not be allowed in certain jurisdictions or may not be allowed near waterways.

Do not apply mulch during windy conditions.

Design and Installation

Prior to mulching, surface-roughen areas by rolling with a crimping or punching type roller or by track walking. Track walking should only be used where other methods are impractical because track walking with heavy equipment typically compacts the soil.

A variety of mulches can be used effectively at construction sites. Consider the following:

Mulch			
Functions			
Erosion Control	Yes		
Sediment Control	Moderate		
Site/Material Management	No		

MM-1

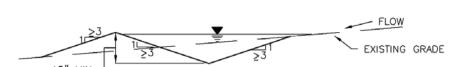
Urban Drainage and Flood Control District June 2012 Urban Storm Drainage Criteria Manual Volume 3

Earth Dikes and Drainage Swales (ED/DS)

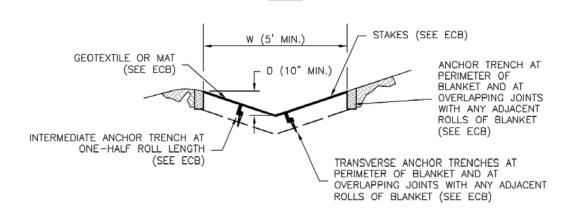
EC-10



COMPACTED UNLINED EXCAVATED SWALE



DS-2. COMPACTED UNLINED SWALE FORMED BY CUT AND



DS-3. ECB LINED SWALE (CUT AND FILL OR BERM)

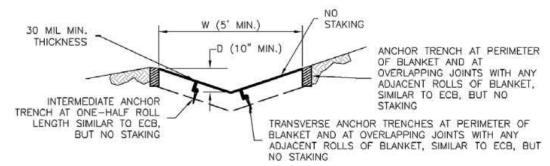
Urban Drainage and Flood Control District

Urban Storm Drainage Criteria Manual Volume 3

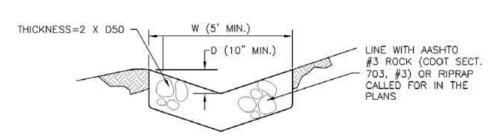
ED/DS-3

MM-2

Earth Dikes and Drainage Swales (ED/DS)



DS-4. SYNTHETIC LINED SWALE



DS-5. RIPRAP LINED SWALE

EARTH DIKE AND DRAINAGE SWALE INSTALLATION NOTES

- 1. SEE SITE PLAN FOR: - LOCATION OF DIVERSION SWALE
- TYPE OF SWALE (UNLINED, COMPACTED AND/OR LINED). DEPTH, D. AND WIDTH, W DIMENSIONS
- FOR ECB/TRM LINED DITCH, SEE ECB DETAIL, FOR RIPRAP LINED DITCH, SIZE OF RIPRAP, D50.

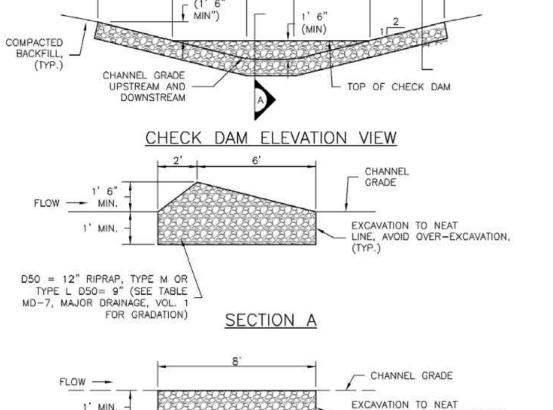
LAND-DISTURBING ACTIVITIES IN PROXIMITY.

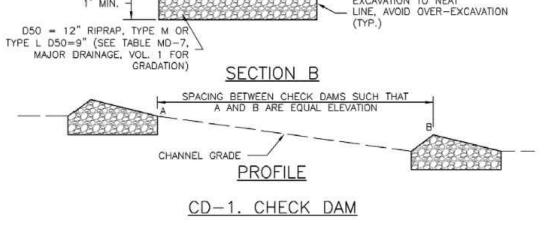
- 2. SEE DRAINAGE PLANS FOR DETAILS OF PERMANENT CONVEYANCE FACILITIES AND/OR
- DIVERSION SWALES EXCEEDING 2-YEAR FLOW RATE OR 10 CFS. 3. EARTH DIKES AND SWALES INDICATED ON SWMP PLAN SHALL BE INSTALLED PRIOR TO
- EMBANKMENT IS TO BE COMPACTED TO 90% OF MAXIMUM DENSITY AND WITHIN 2% OF OPTIMUM MOISTURE CONTENT ACCORDING TO ASTM D698.
- 5. SWALES ARE TO DRAIN TO A SEDIMENT CONTROL BMP.
- 6. FOR LINED DITCHES, INSTALLATION OF ECB/TRM SHALL CONFORM TO THE REQUIREMENTS
- 7. WHEN CONSTRUCTION TRAFFIC MUST CROSS A DIVERSION SWALE, INSTALL A TEMPORARY CULVERT WITH A MINIMUM DIAMETER OF 12 INCHES.

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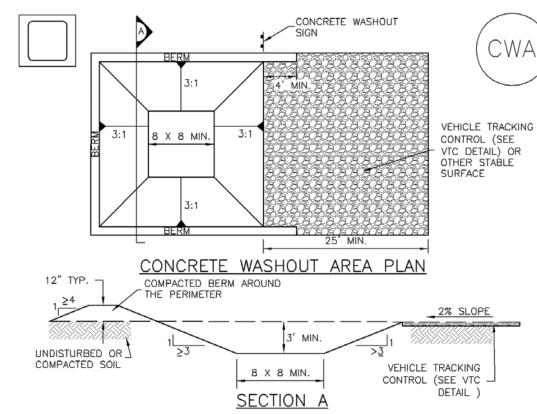
November 2010

EC-12 Check Dams (CD) CREST LENGTH, C





November 2010 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 Concrete Washout Area (CWA)



CWA-1. CONCRETE WASHOUT AREA

CWA INSTALLATION NOTES

1. SEE PLAN VIEW FOR: -CWA INSTALLATION LOCATION.

2. DO NOT LOCATE AN UNLINED CWA WITHIN 400' OF ANY NATURAL DRAINAGE PATHWAY OR WATERBODY. DO NOT LOCATE WITHIN 1,000' OF ANY WELLS OR DRINKING WATER SOURCES. IF SITE CONSTRAINTS MAKE THIS INFEASIBLE, OR IF HIGHLY PERMEABLE SOILS EXIST ON SITE, THE CWA MUST BE INSTALLED WITH AN IMPERMEABLE LINER (16 MIL MIN. THICKNESS) OR SURFACE STORAGE ALTERNATIVES USING PREFABRICATED CONCRETE WASHOUT DEVICES OR A LINED ABOVE GROUND STORAGE ARE SHOULD BE USED.

3. THE CWA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.

4. CWA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS AT LEAST 8' BY 8' SLOPES LEADING OUT OF THE SUBSURFACE PIT SHALL BE 3:1 OR FLATTER. THE PIT SHALL BE AT

5. BERM SURROUNDING SIDES AND BACK OF THE CWA SHALL HAVE MINIMUM HEIGHT OF 1'.

ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CWA TO OPERATORS

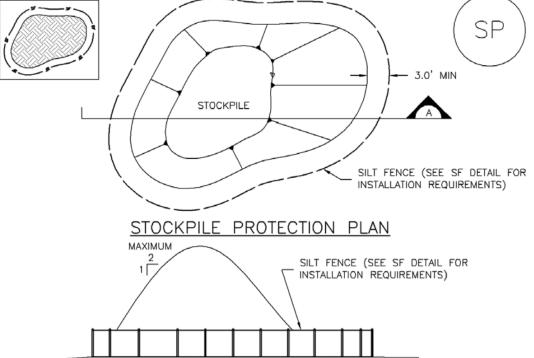
6. VEHICLE TRACKING PAD SHALL BE SLOPED 2% TOWARDS THE CWA. 7. SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE CWA, AND

OF CONCRETE TRUCKS AND PUMP RIGS. 8. USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.

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Stockpile Management (SP)

November 2010



SP-1. STOCKPILE PROTECTION STOCKPILE PROTECTION INSTALLATION NOTES

SECTION A

1. SEE PLAN VIEW FOR: -LOCATION OF STOCKPILES. -TYPE OF STOCKPILE PROTECTION.

SILT FENCE IS SHOWN IN THE STOCKPILE PROTECTION DETAILS; HOWEVER, OTHER TYPES OF SUITABLE IN SOME CIRCUMSTANCES, CONSIDERATIONS FOR DETERMINING THE APPROPRIATE TYPE OF PERIMETER CONTROL FOR A STOCKPILE INCLUDE WHETHER THE STOCKPILE IS LOCATED ON A PERVIOUS OR IMPERVIOUS SURFACE, THE RELATIVE HEIGHTS OF THE PERIMETER CONTROL AND STOCKPILE, THE ABILITY OF THE PERIMETER CONTROL TO CONTAIN THE STOCKPILE WITHOUT FAILING IN THE EVENT THAT MATERIAL FROM THE STOCKPILE SHIFTS OR SLUMPS AGAINST THE PERIMETER, AND OTHER FACTORS.

2. INSTALL PERIMETER CONTROLS IN ACCORDANCE WITH THEIR RESPECTIVE DESIGN DETAILS

3. STABILIZE THE STOCKPILE SURFACE WITH SURFACE ROUGHENING, TEMPORARY SEEDING AND MULCHING, EROSION CONTROL BLANKETS, OR SOIL BINDERS. SOILS STOCKPILED FOR AN EXTENDED PERIOD (TYPICALLY FOR MORE THAN 60 DAYS) SHOULD BE SEEDED AND MULCHED WITH A TEMPORARY GRASS COVER ONCE THE STOCKPILE IS PLACED (TYPICALLY WITHIN 14 DAYS). USE OF MULCH ONLY OR A SOIL BINDER IS ACCEPTABLE IF THE STOCKPILE WILL BE IN PLACE FOR A MORE LIMITED TIME PERIOD (TYPICALLY 30-60 DAYS).

4. FOR TEMPORARY STOCKPILES ON THE INTERIOR PORTION OF A CONSTRUCTION SITE, WHERE OTHER DOWNGRADIENT CONTROLS, INCLUDING PERIMETER CONTROL, ARE IN PLACE, STOCKPILE

November 2010 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 **RECOMMENDED ANNUAL GRASSES**

SPECIES	GROWTH	SEEDING	POUNDS OF PURE	PLANTING
(COMMON NAME)	SEASON	DATE	LIVE SEED (PLS)	DEPTH
			(PLS/ACRE)	(INCHES)
1. OATS	COOL	MARCH 16 - APRIL 30	35-50	1-2
2. SPRING WHEAT	COOL	MARCH 16 - APRIL 30	25-35	1-2
3. SPRING BARLEY	COOL	MARCH 16 - APRIL 30	25-35	1-2
4. ANNUAL RYEGRASS	COOL	MARCH 16 - JUNE 30	10-15	1/2
5. MILLET	WARM	MAY 16 - JULY 15	3-15	1/2-3/4
6. SUDANGRASS	WARM	MAY 16 - JULY 15	5-10	1/2-3/4
7. SORGHUM	WARM	MAY 16 - JULY 15	5-10	1/2-3/4
8. WINTER WHEAT	COOL	SEPTEMBER 1 - 30	20-35	1-2
9. WINTER BARLEY	COOL	SEPTEMBER 1 - 30	20-35	1-2
10. WINTER RYE	COOL	SEPTEMBER 1 - 30	20-35	1-2
11. TRITICALE	COOL	SEPTEMBER 1 - 30	25-40	1-2

THIS TABLE WAS TAKEN FROM UDFCD FOR RECOMMENDED ANNUAL GRASSES FOR THE DENVER METROPOLITAN AREA. THIS TABLE MAY BE USED UNLESS A SITE-SPECIFIC SEED MIX IS REQUESTED AND APPROVED.

TABLE TS-1

TEMPORARY SEEDING NOTES

INSTALLATION REQUIREMENTS 1. DISTURBED AREAS ARE TO BE SEEDED WITHIN

21 DAYS AFTER CONSTRUCTION ACTIVITY OR GRADING ENDS IF SEASON ALLOWS.

2. IF NECESSARY, SOIL IS TO BE CONDITIONED FOR PLANT GROWTH BY APPLYING TOPSOIL, 3. SOIL IS TO BE TILLED IMMEDIATELY PRIOR TO APPLYING SEEDS. COMPACT SOILS ESPECIALLY NEED TO BE LOOSENED.

4. SEEDBED DEPTH IS TO BE 4 INCHES FOR SLOPES FLATTER THAN 2:1, AND 1 INCH FOR

SLOPES STEEPER THAN 2:1. 5. ANNUAL GRASSES LISTED IN TABLE TS-1 ARE TO BE USED FOR TEMPORARY SEEDING. SEED MIXES ARE NOT TO CONTAIN ANY NOXIOUS WEED

SEEDS INCLUDING RUSSIAN OR CANADIAN THISTLE

KNAPWEED. PURPLE LOOSESTRIFE. EUROPEAN BINDWEED, JOHNSON GRASS, AND LEAFY SPURGE. 6. TABLE TS-1 ALSO PROVIDES REQUIREMENTS FOR SEEDING RATES, SEEDING DATES, AND PLANTING

DEPTHS FOR THE APPROVED TYPES OF ANNUAL 7. SEEDING IS TO BE APPLIED USING MECHANICAL TYPE DRILLS EXCEPT WHERE SLOPES ARE STEEP OR

ACCESS IS LIMITED THEN HYDRAULIC SEEDING MAY 8. ALL SEEDED AREAS ARE TO BE MULCHED (SEE

FACTSHEET ON MULCHING). 9. IF HYDRAULIC SEEDING IS USED THEN HYDRAULIC MULCHING SHALL BE DONE SEPARATELY TO AVOID SEEDS BECOMING ENCAPSULATED IN THE MULCH.

> City of Colorado Springs Stormwater Quality

Figure TS-1 Temporary Seeding Construction Detail and Maintenance

MAINTENANCE REQUIREMENTS

1. REGULAR INSPECTIONS ARE TO BE MADE OF ALL

2. AREAS WHERE GROWTH IS NOT OCCURRING QUICKLY OR THE MULCH HAS BEEN REMOVED

3. SEEDED AREAS ARE NOT TO BE DRIVEN OVER

WITH CONSTRUCTION EQUIPMENT OR VEHICLES.

SHALL BE RE-SEEDED AS SOON AS POSSIBLE

SEEDED AREAS TO ENSURE GROWTH.

AND RE-MULCHED IF NEEDED.

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NO. DATE BY REVISION DESCRIPTION

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HR GREEN - COLORADO SPRINGS 1975 RESEARCH PARKWAY SUITE 160 COLORADO SPRINGS, CO 80920 PHONE: 719.300.4140 HRGreen FAX: 713.965.0044

FLYING HORSE NORTH FILING NO. 5 PRI #2, LLC. EL PASO COUNTY, CO

GRADING & EROSION CONTROL PLAN DETAILS 1

Description

Implement construction site good housekeeping practices to prevent pollution associated with solid, liquid and hazardous construction-related materials and wastes. Stormwater Management Plans (SWMPs) should clearly specify BMPs including these good housekeeping practices:

- Provide for waste management.
- Establish proper building material staging areas.
- Designate paint and concrete washout areas.
- Establish proper equipment/vehicle fueling and maintenance practices.
- Control equipment/vehicle washing and allowable nonstormwater discharges.
- Develop a spill prevention and response plan.

Acknowledgement: This Fact Sheet is based directly on EPA guidance provided in Developing Your Stormwater Pollution Prevent Plan (EPA 2007).

Appropriate Uses

Good housekeeping practices are necessary at all construction sites.

Design and Installation

The following principles and actions should be addressed in SWMPs:

 Provide for Waste Management. Implement management procedures and practices to prevent or reduce the exposure and transport of pollutants in stormwater from solid, liquid and sanitary wastes that will be generated at the site. Practices such as trash disposal, recycling, proper material handling, and cleanup measures can reduce the potential for stormwater runoff to pick up construction site wastes and discharge them to surface waters. Implement a comprehensive set of waste-management practices for hazardous or toxic materials, such as paints, solvents, petroleum products, pesticides, wood preservatives, acids, roofing tar, and other materials. Practices should include storage, handling, inventory, and cleanup procedures, in case of spills. Specific practices that should be considered include:

Solid or Construction Waste

Designate trash and bulk waste-collection areas on-

Functions	
Erosion Control	No
Sediment Control	No
Site/Material Management	Yes

Photographs GH-1 and GH-2. Proper materials

storage and secondary containment for fuel tanks

courtesy of CDOT and City of Aurora.

are important good housekeeping practices. Photos

MM-3

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Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 Recycle materials whenever possible (e.g., paper, wood, concrete, oil).

- Segregate and provide proper disposal options for hazardous material wastes.
- Clean up litter and debris from the construction site daily.
- Locate waste-collection areas away from streets, gutters, watercourses, and storm drains. Wastecollection areas (dumpsters, and such) are often best located near construction site entrances to minimize traffic on disturbed soils. Consider secondary containment around waste collection areas to minimize the likelihood of contaminated discharges.
- Empty waste containers before they are full and overflowing.

Sanitary and Septic Waste

- Provide convenient, well-maintained, and properly located toilet facilities on-site.
- Locate toilet facilities away from storm drain inlets and waterways to prevent accidental spills and contamination of stormwater.
- Maintain clean restroom facilities and empty portable toilets regularly.
- Where possible, provide secondary containment pans under portable toilets.
- Provide tie-downs or stake-downs for portable toilets.
- Educate employees, subcontractors, and suppliers on locations of facilities.
- Treat or dispose of sanitary and septic waste in accordance with state or local regulations. Do not discharge or bury wastewater at the construction site.
- Inspect facilities for leaks. If found, repair or replace immediately.
- o Special care is necessary during maintenance (pump out) to ensure that waste and/or biocide are not spilled on the ground.

Hazardous Materials and Wastes

- Develop and implement employee and subcontractor education, as needed, on hazardous and toxic waste handling, storage, disposal, and cleanup.
- Designate hazardous waste-collection areas on-site.
- Place all hazardous and toxic material wastes in secondary containment.

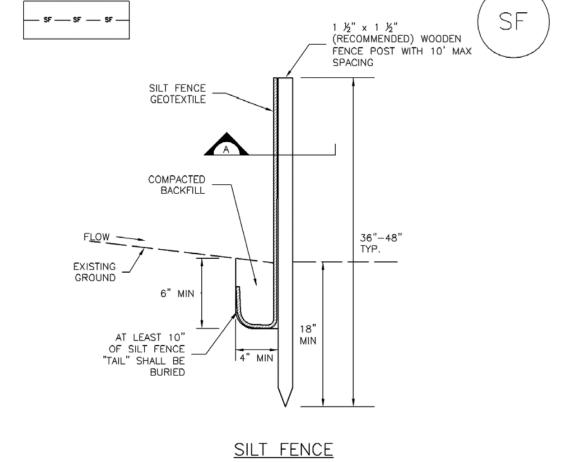


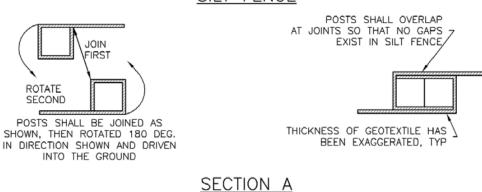
Photograph GH-3. Locate portable toilet facilities on level surfaces away from waterways and storm drains. Photo courtesy of WWE.

GH-2

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SC-1 Silt Fence (SF)



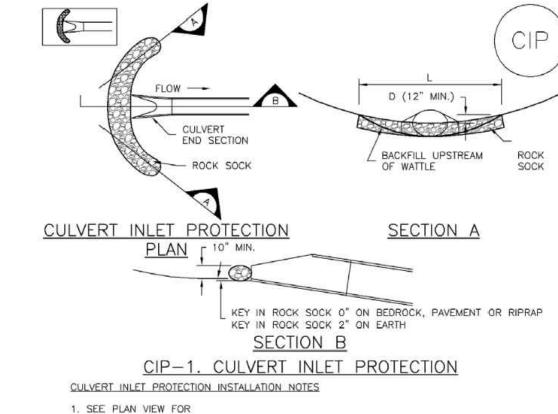


SF-1. SILT FENCE

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Inlet Protection (IP)

SC-6



-LOCATION OF CULVERT INLET PROTECTION.

2. SEE ROCK SOCK DESIGN DETAIL FOR ROCK GRADATION REQUIREMENTS AND JOINTING DETAIL.

CULVERT INLET PROTECTION MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. SEDIMENT ACCUMULATED UPSTREAM OF THE CULVERT SHALL BE REMOVED WHEN THE SEDIMENT DEPTH IS 1/2 THE HEIGHT OF THE ROCK SOCK.

5. CULVERT INLET PROTECTION SHALL REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS PERMANENTLY STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.

(DETAILS ADAPTED FROM AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

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SM-4

VTC-3

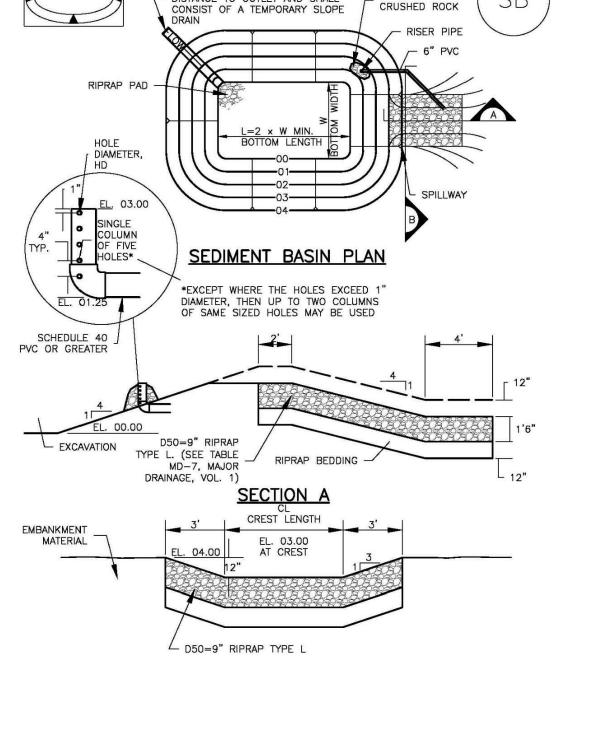
1975 RESEARCH PARKWAY SUITE 160

COLORADO SPRINGS, CO 80920

PHONE: 719.300.4140

November 2010

SC-7 **Sediment Basin (SB)** INLETS TO SEDIMENT BASIN SHALL ENTER AT FURTHEST DISTANCE TO OUTLET AND SHALL CRUSHED ROCK CONSIST OF A TEMPORARY SLOPE <u>SEDIMENT BASIN PLAN</u>



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11/18/2024

BAR IS ONE INCH ON

OFFICIAL DRAWINGS.

IF NOT ONE INCH.

ADJUST SCALE ACCORDINGLY.

NO. DATE BY



(WIDTH CAN BE LESS IF CONST. VEHICLES ARE PHYSICALLY CONFINED ON BOTH SIDES) SIDEWALK OR OTHER 75 FOOT (MIN.) PAVED SURFACE - 9" (MIN.) JNLESS OTHERWISE SPECIFIED **PUBLIC** BY LOCAL JURISDICTION, USE

— CDOT SECT. #703, AASHTO #3 ROADWAY COARSE AGGREGATE OR 6" MINUS ROCK NON-WOVEN GEOTEXTILE FABRIC BETWEEN SOIL AND ROCK UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, USE CDOT SECT. #703, AASHTO INSTALL ROCK FLUSH WITH OR BELOW TOP OF PAVEMENT #3 COARSE AGGREGATE OR 6" MINUS ROCK NON-WOVEN GEOTEXTILE

COMPACTED SUBGRADE -

VTC-1. AGGREGATE VEHICLE TRACKING CONTROL

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REVISION DESCRIPTION

HR GREEN - COLORADO SPRINGS

HRGreen FAX: 713.965.0044

Stabilized Staging Area (SSA)

CONSTRUCTION

SM-6

NEEDED) CONSTRUCTION SITE ACCESS 3" MIN. THICKNESS GRANULAR MATERIAL CONSTRUCTION ENTRANCE (SEE -DETAILS VTC-1 TO VTC-3) SILT FENCE OR CONSTRUCTION — SF/CF — SF/CF → FENCING AS NEEDED

ONSITE ONSTRUCTION

VEHICLE PARKING (1F

EXISTING ROADWAY SSA-1. STABILIZED STAGING AREA

STABILIZED STAGING AREA INSTALLATION NOTES 1. SEE PLAN VIEW FOR

-LOCATION OF STAGING AREA(S). -CONTRACTOR MAY ADJUST LOCATION AND SIZE OF STAGING AREA WITH APPROVAL

2. STABILIZED STAGING AREA SHOULD BE APPROPRIATE FOR THE NEEDS OF THE SITE. OVERSIZING RESULTS IN A LARGER AREA TO STABILIZE FOLLOWING CONSTRUCTION. 3. STAGING AREA SHALL BE STABILIZED PRIOR TO OTHER OPERATIONS ON THE SITE. 4. THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM 3" THICK GRANULAR

5. UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK. 6. ADDITIONAL PERIMETER BMPs MAY BE REQUIRED INCLUDING BUT NOT LIMITED TO SILT

FENCE AND CONSTRUCTION FENCING. STABILIZED STAGING AREA MAINTENANCE NOTES

MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE. 2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION.

EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE 3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON

4. ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY IF RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.

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EL PASO COUNTY, CO

FLYING HORSE NORTH FILING NO. 5 PRI #2, LLC.

GRADING & EROSION CONTROL PLAN DETAILS 2

PCD FILE NO.: SF24:

DRAWN BY: AMC

APPROVED: RDL

CAD DATE: <u>11/19/2024</u>

August 2013

JOB DATE:

CAD FILE: J:\2021\211030\CAD\Dwgs\C\Filing_No_5\GEC\GEC-Details

JOB NUMBER: <u>211030</u>

